

CR-AVE Flight Summary
22 January 2006
All times given in CST

General Information

Flight date – 22 January 2006

Flight description – Flight 4 CR-AVE Remote Payload Data Flight (7th flight)

Flight duration - 4.5 hours

Crew – Andrew Roberts, Dom Del Rosso

Instruments flown (21): 2DS, ACAM, ALIAS, CAFS, CAPS, CO₂, CoSSIR, CPI, CPL, CRS, CSI, Frostpoint, ICOS, JLH, MMS, Ozone, PALMS, PANTHER, PT, Scanning-HIS, WAS

Flight Log

Engine Start	11:40 am	Takeoff	11:59 am	Approach	
Data Rec On	11:45 am	Begin Descent	4:28 pm	Landing	4:40 pm

Gear extensions/retractions

Gear Up	11:59 am					
Gear Down	4:30 pm					

Weather Observations

Climb-Out:

- Scattered broken layer around 8 kft on climb-out.
- Enroute – low cloud cover, continuous to broken. Some moderate development, widely scattered.
- No visually obvious high cirrus outbound.
- Apparent high cirrus on northern end of inbound track.

Cruise:

- Rapid unrestricted climb to 53 kft.
- 12:12 pm – level at 35 kft for MMS maneuvers.
- 12:30 pm – arrived at 53 kft past waypoint 3.
- Outbound cruise with 300 ft/min flight profile between 53 and 56 kft.
- Inbound to waypoint 5.
- Descent to 30 kft, ascent to cruise altitude.
- Descent at waypoint to 45 kft.
- Descent over MROC unrestricted to 25 kft. Contrails visible, broken layer over most of country. Clear directly below.

Descent:

- Penetrated one cloud at 8 kft on final approach to the San Jose airport.

Flight Profile

- 12:30 pm – 53 kft – two photos east/west, one south
- 12:41 pm – 56 kft
- 12:48 pm – 53.5 kft – photo of cirrus in distance
- 12:50 pm – 53 kft
- 1:02 pm – 56 kft
- 1:05 pm – satellite overpass – N 04 48 87, W 081 41 28
- 1:14 pm – 53 kft
- 1:25 pm – 56 kft – two photos east/west
- 1:36 pm – 56 kft
- 1:48 pm – 56.5 kft – two photos east/west
- 2:00 pm – photo of contrails
- 2:14 pm – 31 kft – two photos east/west
- 2:25 pm – 47 kft – turbulence
- 2:35 pm – 56.5 kft – two photos east/west
- 2:42 pm – waypoint 8
- 2:52 pm – 45 kft – begin ascent
- 3:38 pm – 61.3 kft – waypoint 11
- 3:48 pm – 61.5 kft – over MROC
- 3:52 pm – 2 minutes straight and level
- 3:54 pm – 62.6 kft - zoom

Instrument Notes

- Climb past 5 kft at 12:00 pm
- Climb past 18 kft at 12:05 pm
- CoSSIR was never turned on during the entire flight, per checklist
- CPI was inadvertently turned off at 5 kft and CSI turned off after landing (instead of the other way around) due to operator error.